PATENT DATE PATENT BERIAL NUMBER NUMBER SERIAL NUMBER FILING DATE CLASS SUBCLASS **GROUP ART UNIT** EXAMINER 1623 08/961,443 10/30/97 Cinach TIM M. TOWNES, BIRMINGHAM, AL; THOMAS RYAN, BIRMINGHAM, AL; DOMINIC CIAVATTA, BIRMINGHAM, AL. **CONTINUING DATA*************** VERIFIED THIS APPLN IS A CIP OF 08/934,385 09/19/97 ABN WHICH IS A CIP OF 08/888,433 07/07/97 *ABN* DM 7/16/99 WHICH IS A CON OF 08/611,542 03/06/96 ABN **FOREIGN APPLICATIONS********* VERIFIED none FOREIGN FILING LICENSE GRANTED 12/12/97 **** SMALL ENTITY ***** Foreign priority claimed
35 USC 119 conditions met

Verified and Acknowledged

Examiner's initia STATE OR COUNTRY TOTAL CLAIMS SHEETS DRWGS. INDEP. AS FILED FILING FEE ATTORNEY'S CLAIMS RECEIVED 04005/01300 KAREN L'ELBING CLARK & ELBING 176 FEDERAL STREET BOSTON MA 02110 TRANSGENIC ANIMALS THAT PRODUCE HUMAN HEMOGLOBIN THE. U.S. DEPT. OF COMM./PAT. & TM - PTO-436L (Rev. 12-94) PARTS OF APPLICATION FILED SEPARATELY

Applications Examiner NOTICE OF ALLOWANCE MAILED CLAIMS ALLOWED Total Claims Print Claim ISSUE FEE DRAWING Amount Due Date Paid Figs. Drwg. Print Fig. Sheets Drwg. ISSUE BATCH Primary Examiner NUMBER Label PREPARED FOR ISSUE WARNING: The information disclosed herein may be restricted. Unauthorized disclosure may be prohibited by the United States Code Title 35, Sections 122, 181/and 368. Possession outside the U.S. Patent & Trademark Office is restricted to authorized employees and contractors only.

(FACE)